

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. – 24. (canceled)

25. (currently amended) A method for identifying determining whether a genetic region is associated with responsiveness to an agent, the said method comprising:

- (a) providing a plurality of single-nucleotide polymorphisms and a plurality of haplotypes for one or more regions of a chromosome;
- (b) identifying the number of said single-nucleotide polymorphisms of said plurality in at least weak linkage disequilibrium with each other on said chromosomal regions;
- (c) comparing the number of said single-nucleotide polymorphisms in linkage disequilibrium to the number of said haplotypes in said chromosomal regions; and
- (d) selecting a correlation test, wherein a single nucleotide-based correlation test is selected if the number of said single-nucleotide polymorphisms in linkage disequilibrium is smaller than the number of said haplotypes, and a haplotype-based correlation test is selected if the number of said single-nucleotide polymorphisms in linkage disequilibrium is greater than the number of said haplotypes, thereby identifying determining whether a said genetic region is associated with responsiveness to an said agent.

26. (previously presented) The method of claim 25, wherein the correlation test is a regression test.

27. (currently amended) The method of claim 25, wherein the correlation test is ANOVA an analysis of variance.